

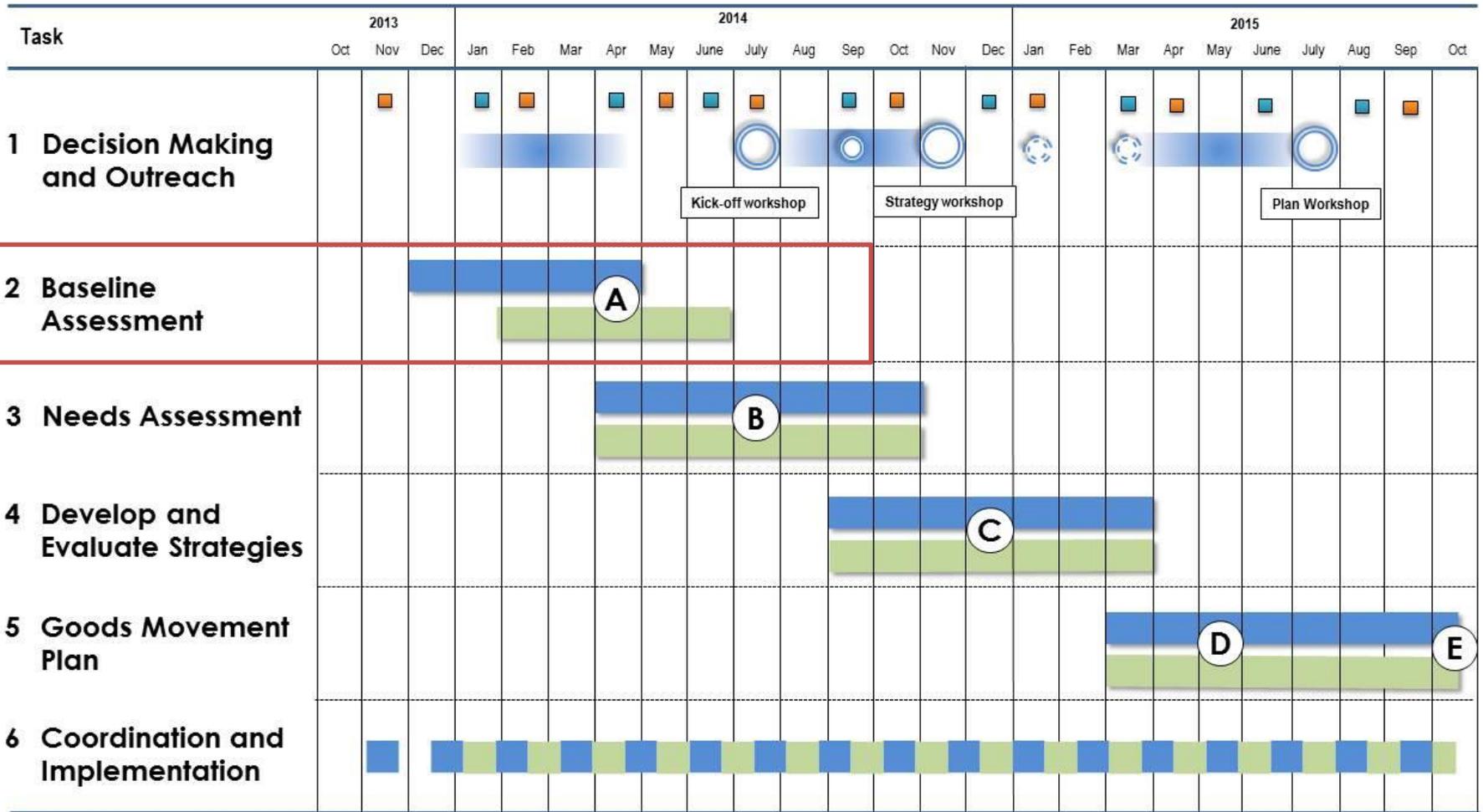
Goods Movement Collaborative Goods Movement Plan

*Highlights on Infrastructure, Services,
Demographics, and Freight Flow Trends*



PTAC

September 15, 2014



ACTC Activity

Executive Team Meetings

Stakeholder Roundtables (Broad and topic-based)

MTC Activity

Technical Teams Meetings

Interest Group Meetings and Outreach

A Vision and Goals

B Performance Measures

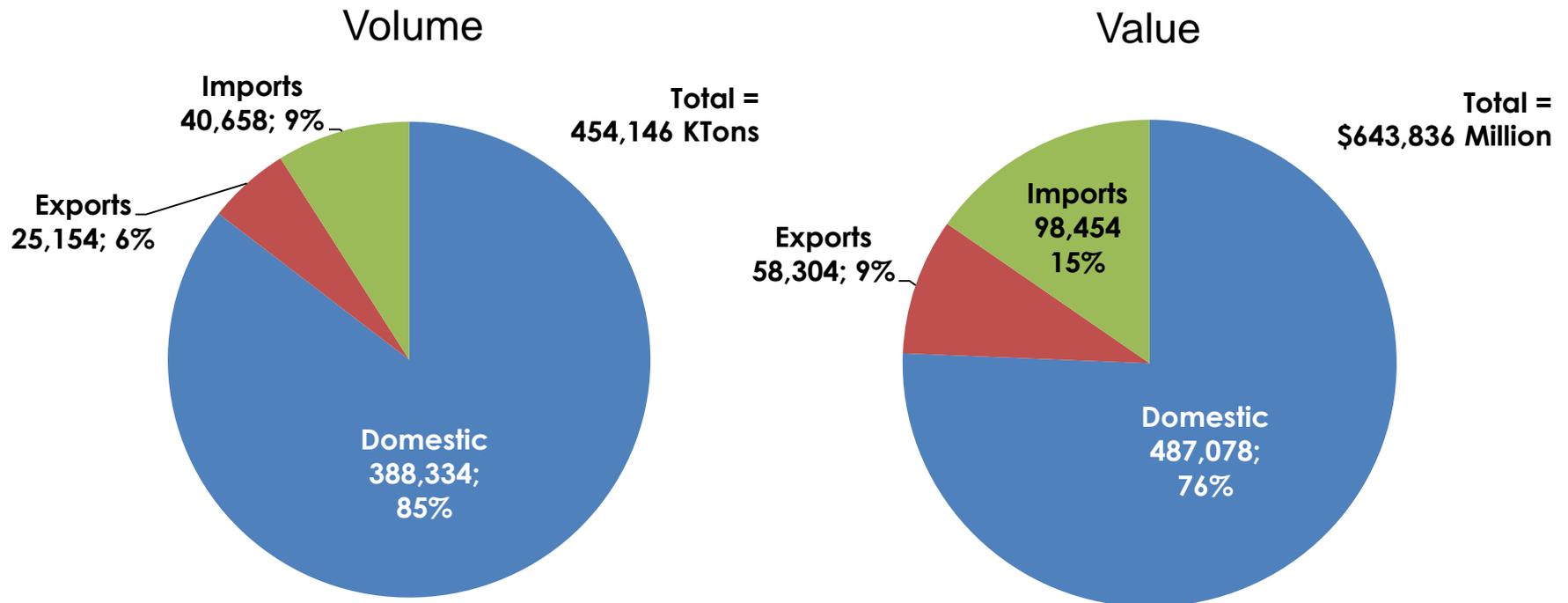
C Strategy Development

D Strategy Evaluation Results

E Final Plans

Base Year Freight Flows Highlights

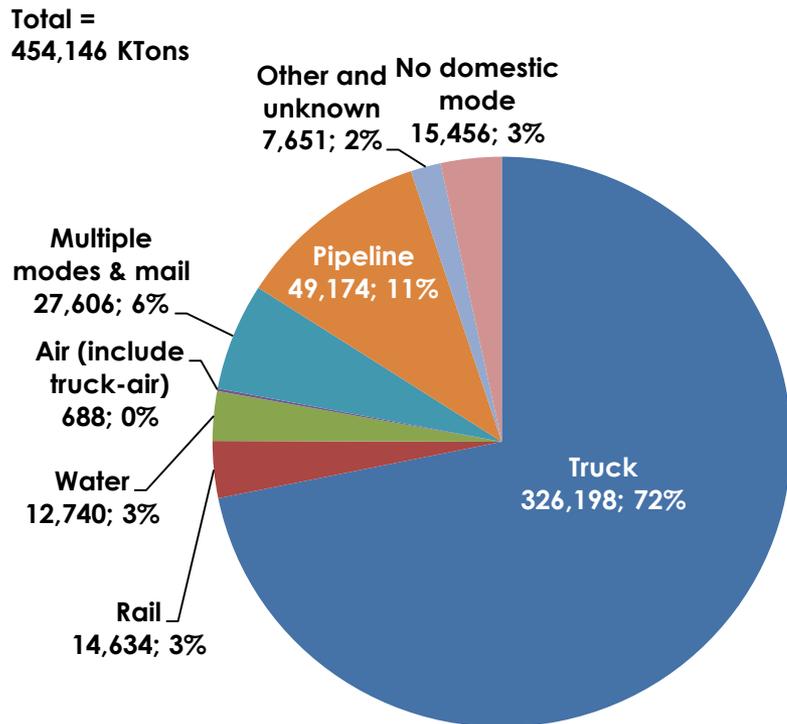
Freight Flows by Trade Type – Regional Overview



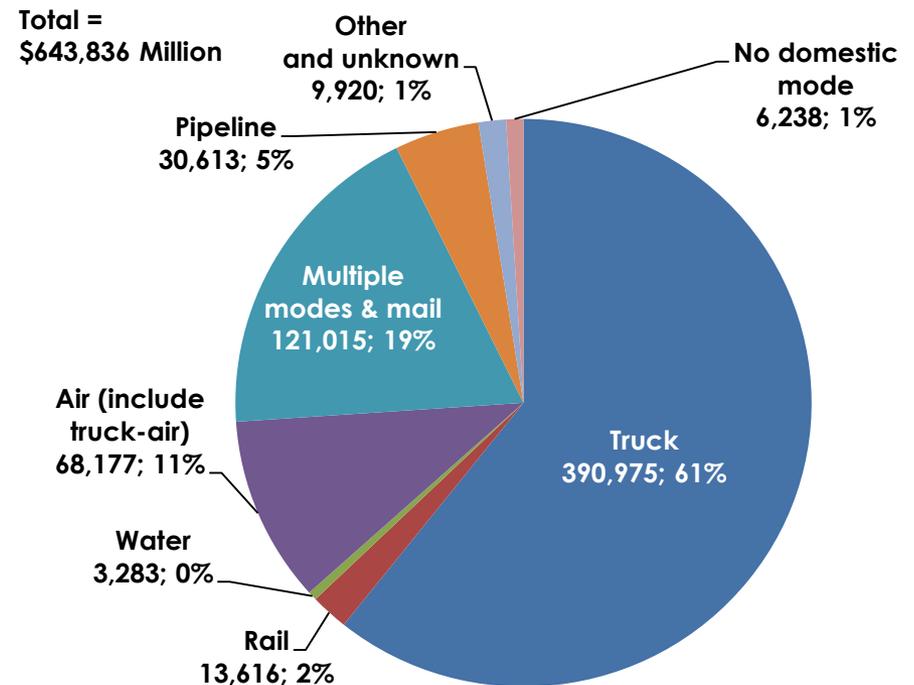
Source: Cambridge Systematics FAF3 2012 Disaggregated Database.

Freight Flows by Mode – Regional Overview

Volume

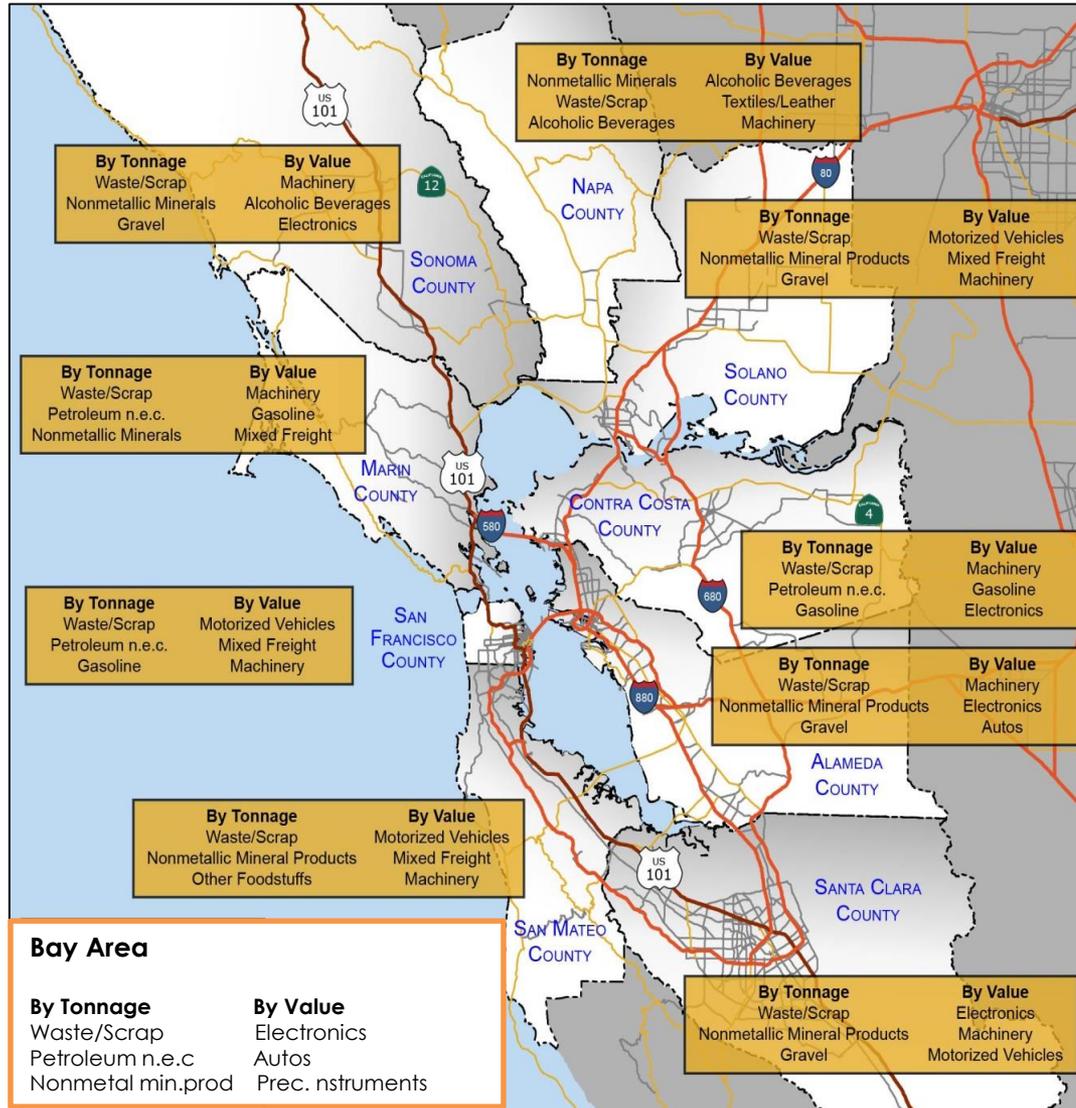


Value



Source: Cambridge Systematics FAF3 2012 Disaggregated Database.

Top Commodities Moved by Truck



Source: Cambridge Systematics FAF3 2012 Disaggregated Database.

Goods Movement Corridors

List of Goods Movement Corridors

Counties in Bay Area	Corridor Name	Functions of the Corridor
Alameda, Santa Clara	I-880	Global Gateway, Interregional, Intraregional
San Francisco, Alameda, Contra Costa, Solano, Napa	I-80 (Central Corridor)	Interregional, Intraregional
Contra Costa, Alameda	I-580/SR 238 (Altamont Corridor)	Interregional
Santa Clara, San Mateo, San Francisco, Marin, Sonoma	U.S. 101	Global Gateway, Interregional, Intraregional
Santa Clara, Alameda, Contra Costa	I-680	Global Gateway, Intraregional
Sonoma, Napa, Solano, Marin	SR 12/SR 37	Interregional, Intraregional
Santa Clara	SR 152	Interregional, Intraregional
Contra Costa	SR 4	Intraregional, interregional

I-880 Corridor – Overview

- Core N-S corridor in East Bay from San Jose to Oakland
- Supports industries in:
 - *Manufacturing*
 - *Logistics*
 - *Other value-added industries*
- Other Key Infrastructure:
 - *UP rail lines from Oakland to San Jose*
 - *Port of Oakland*
 - *Railport and OIG*
 - *Oakland International Airport*
 - *Mineta San Jose Int'l Airport*

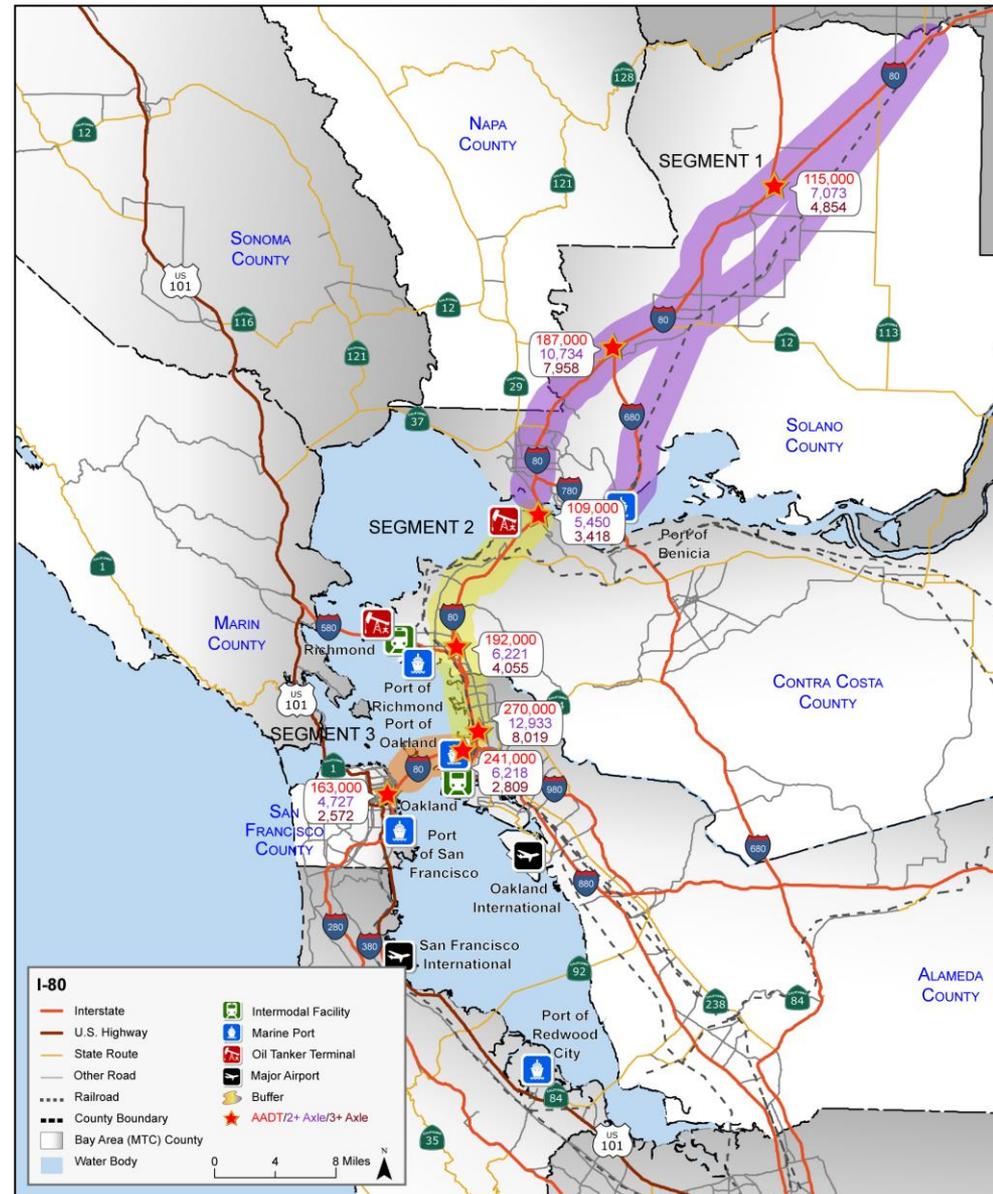


I-880 Corridor – Trends and Needs

- Truck traffic on corridor highest in Oakland, reaching 20,000 trucks per day, truck volumes decreases southbound.
- Significant freight rail volumes (up to 50 trains/day on Oakland Sub), with additional shared passenger train service (ACE).
- In the future, truck traffic will grow due to:
 - Significant growth at Port of Oakland driven by exports
 - Moderate growth at OAK (at 1.6% annually from 2012 to 2040)
- Highway issues include:
 - Significant bottlenecks around interchanges, and high volume segment
 - Operational and safety constraints due to weaving, merging activities, and roadway configurations
 - Pavement damage
- Port of Oakland issues include:
 - Terminal congestion
 - Land constraints
 - Deficiencies in cargo-handling equipment
 - Dredging

I-80 Corridor – Overview

- Major interregional freight corridor
 - Connects the Bay Area to Sacramento and northern U.S. states
 - Serves several oil terminals that rely on it for distribution of petroleum products
- Other Key Infrastructure
 - UP rail connections along the Martinez Subdivision, Capitol corridor
 - Port of Richmond
 - Shore marine oil terminal at Carquinez, the Valero marine oil terminal at Benicia, and the Tesoro marine oil terminals in Martinez



I-80 Corridor – Trends and Needs

- Truck traffic highest from Emeryville to Richmond (12,000 trucks per day in 2012), mostly heavy trucks. Truck traffic will continue to grow in the future.
- Martinez Sub is the busiest rail segment, with 50+ trains per day (passenger and freight) in 2012.
- Significant growth in rail expected from:
 - Imported and domestic intermodal shipments
 - Import/domestic auto
 - Industrial shippers in Solano County
 - Crude oil from Canada
- Truck issues include:
 - Delay between Bay Bridge and Albany (major commuter corridor)
 - Significant operational issues
- Rail issues include:
 - Congestion along Martinez Subdivision
 - Grade crossing safety issues along Martinez Subdivision
 - Passenger rail conflicts (Amtrak corridors), Capitol corridor close to capacity
 - In the future, crude oil from Canada can affect rail traffic significant on Tracy Subdivision

The I-580 Corridor

– Overview

- Most heavily used interregional truck corridor in the Bay Area
 - Connects to I-205 to distribution warehouses in Tracy
 - Primary route for agriculture exporters in the San Joaquin Valley
- Other Key Infrastructure
 - UP Oakland Subdivision
 - Port of Richmond

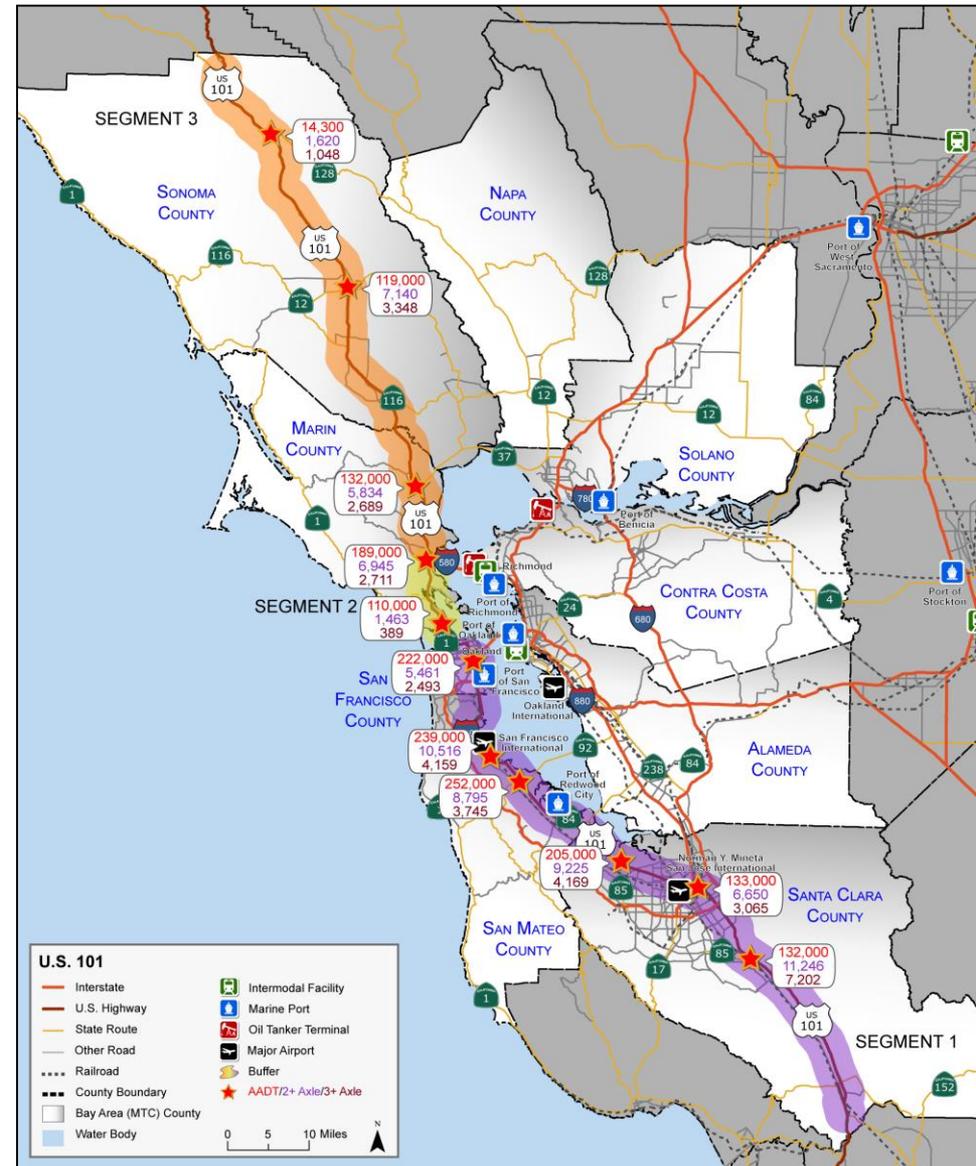


I-580 Corridor – Trends and Needs

- Truck traffic highest in the eastern portion, reaching 20,000+ trucks per day near Livermore
- Truck traffic will grow significantly in the future from
 - *Continued relocation of DCs to inland locations*
 - *Expansion of export cargoes (ag products from Central Valley)*
- Port of Richmond growth in the future will be driven by continued imports of automobile and bulk goods
- Worst areas of truck delay in the Bay Area experienced along the corridor at El Charro Road and SR 84
- Rail bottleneck between Elmhurst and Newark, and around Niles Junction

US 101 Corridor – Overview

- Main N-S corridor on the peninsula
 - Used for distribution of products to major population centers in Santa Clara, San Mateo, and San Francisco Counties
 - Only N-S connector in the North Bay serving Marin and Sonoma Counties (agriculture products)
- Other Key Infrastructure
 - The Port of San Francisco
 - The Port of Redwood City
 - SFO



US 101 Corridor – Trends and Needs

- Truck volumes highest around San Jose, with 11,000+ trucks per day in 2012, mostly heavy
- Near SFO, more smaller trucks are used than heavy trucks
- Truck growth in the future will be driven mostly by
 - *population demand*
 - *Agriculture product demands in North Bay*
- Air cargo volumes at SFO projected to grow significantly (3.4% annually)
- Highway issues include significant truck delay around key population centers that are used by commuters in Santa Clara, San Mateo Counties – lack of alternatives
- Port of San Francisco can see increased rail volumes with planned rail improvements to handle waste, but will continue to be limited as a cargo port
- Port of Redwood City will see continue growth of construction materials and other bulk, which can strain the port's capacity

The I-680 Corridor – Overview

- Intraregional corridor providing
 - N-S connection of I-80 to more inland locations on the East Bay
 - Connection between South Bay and I-580
 - Connection to the wine regions of the North Bay to the Central Valley via I-580
- Other Key Infrastructure
 - Port of Benicia
 - Valero Oil Refinery



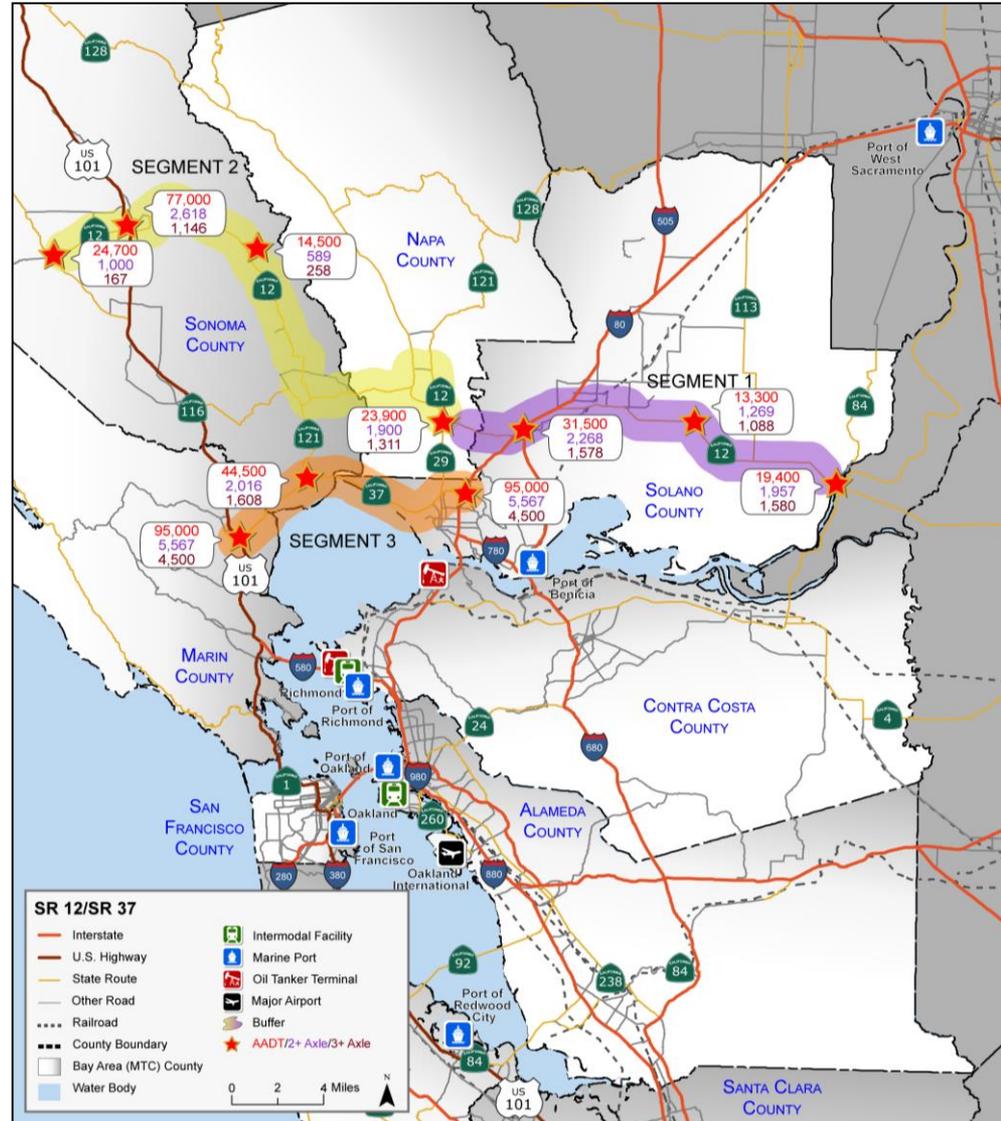
I-680 Corridor – Trends and Needs

- Truck volumes highest around I-580 (12,000 trucks per day) and Fremont and Pleasanton – clusters of industrial activities
- Heavy truck traffic will increase moderately in the future, driven primarily by local and domestic markets, as well as import and exports
- Growth in manufacturing activity in south Bay (e.g. Tesla Plant) will also place additional traffic on this corridor
- Highway issues include
 - *Conflicts between trucks and autos*
 - *Pavement damage due to heavy materials such as autos, waste/scrap, construction materials*
 - *Lack of ROW availability in portions of I-680 in Solano County*

SR 12/37 Corridors

– Overview

- SR 12 is a mostly rural E-W intraregional corridor that connects agriculture products from North Bay and Delta region to market via I-80 and US 101
- SR 37 is an secondary corridor offering parallel connection to US 101, west of I-80

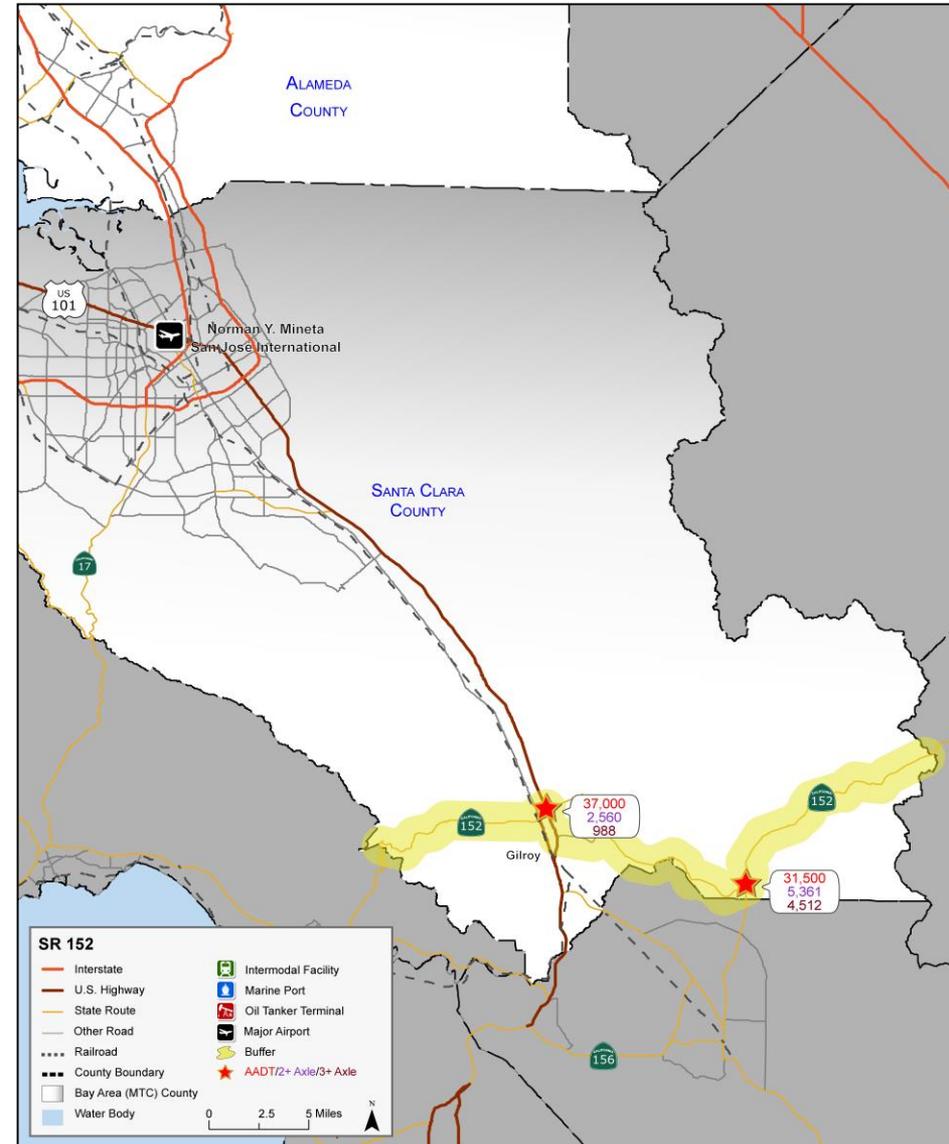


SR 12/37 Corridor – Trends and Needs

- Highest truck volumes at junctions with US101 and I-80 (5,000 trucks per day in 2012)
- SR 12 has moderate truck volumes east of I-80 (~2,000 truck per day in 2012)
- West of I-80, trucks mostly travels on SR 37
- SR 12 East issues include
 - *Congestion during peak commute times*
 - *River bridge operational constraints (e.g. Rio Vista Bridge)*
- SR 37 issues include
 - *Significant congestion and reliability issues during peak hours*

SR 152 Corridor – Overview

- E-W corridor connecting the South Bay, North Central Coast and Central Valley regions
- Vital connection to SJV and Monterrey Peninsula, where 50% of the state's agricultural activities take place



SR 152 Corridor – Trends and Needs

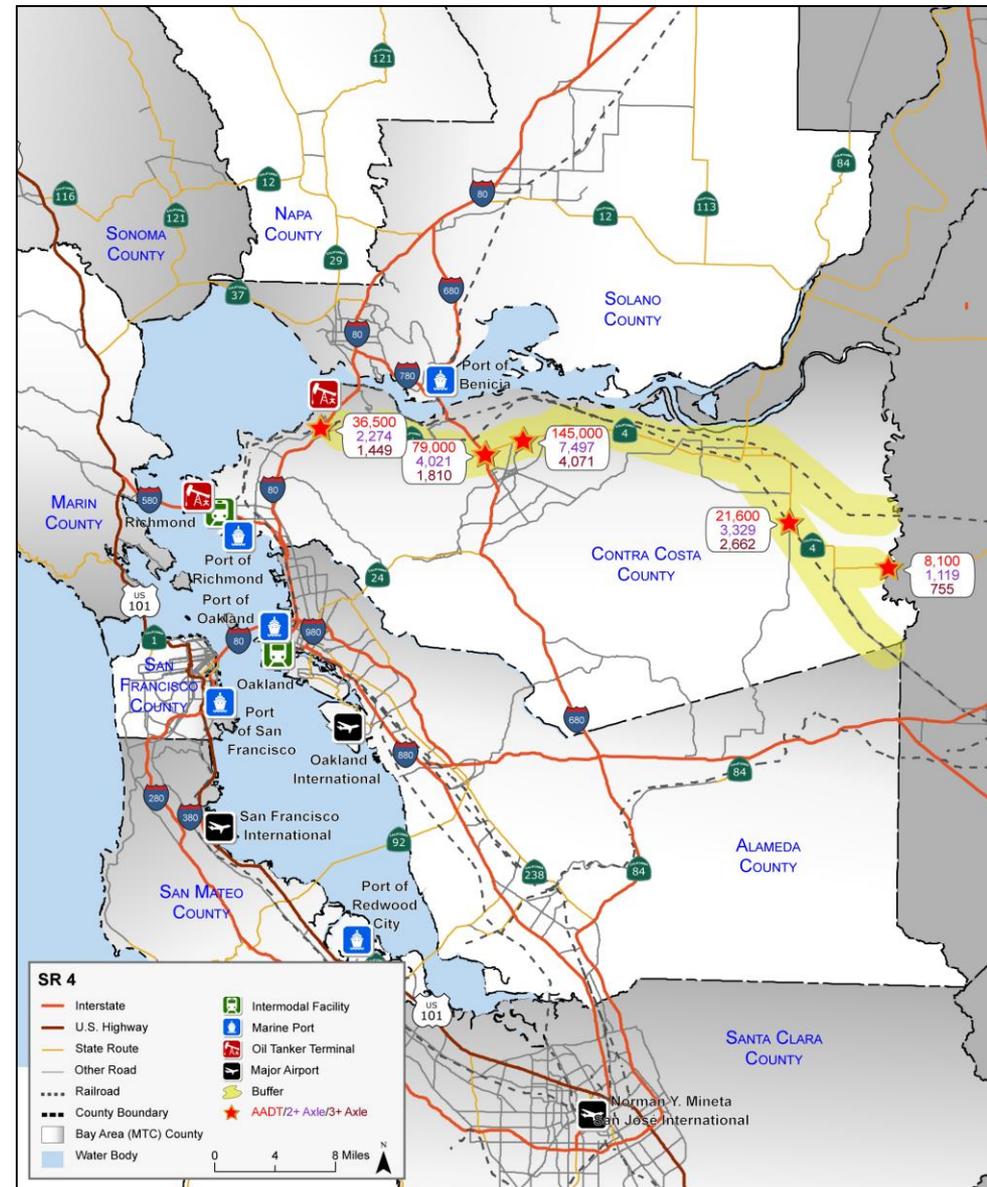
- Truck traffic on SR 152 vary significantly, highest near US101 with 5,000 trucks daily in 2012.
- Growing important as a E-W artery and auxiliary route to I-580 and SR 46 (the other two E-W routes in the)
- Truck volumes projected to nearly double by 2035*
- Truck issues include:
 - *Delays at intersections*
 - *Overall congestion*
 - *Poor connectivity with adjoining state highways at some locations*
 - *Rural segments with 2 lanes not capable of moving anticipated traffic effectively in the future*

*Route 152 Trade Corridor Summary Report, VTA, 2013

SR 4 Corridor

– Overview

- E-W route connecting Central Valley and Bay Area
 - Serves local and intercity truck traffic
 - Provides connections between the oil refineries and other industrial producers along the CCC Northern Waterfront with the rest of the intraregional network
- Other Key Infrastructure
 - BNSF and UP Lines from Stege/Port Chicago to Stockton
 - UP MOCOCO line



SR 4 Corridor – Trends and Needs

- Truck Traffic highest around Port Chicago (7,000 trucks per day in 2012). Traffic decreases significantly going east.
- BNSF line to Stockton had up to 25 trains daily (passenger and freight) in 2012, which is expected to grow moderately in the future
- Highway issues along the route include bottlenecks around Port Chicago and several other areas.
- Lack of corridor wide traffic management is also an issue

Next Steps

- Finalize Infrastructure, Services, Demographics, and Freight Flow Trends
- Conduct Detailed Needs Assessment